IN THE SPECIFICATION

Please replace the following paragraphs of the specification. Applicant includes herewith an Attachment for Specification Amendments showing a marked up version of each replacement paragraph.

Page 1:

[0003] QoS guarantees relate to a network's ability to provide a service with some level of data delivery assurance. This assurance is usually given in terms of guaranteed bandwidth, delay bounds or jitter parameters which are important in RT applications.

Page 7:

[0025] In one embodiment of the present invention, controller 4 is operable to control the transmission of instructions along pathways 4a,...4n to APs 2a,...2n (see FIG. 1) to initiate the beginning of beacon block 80. The beacon block 80 begins with the jamming phase 81a which is used to silence the associated users of APs 2a,...2n for a time period (referred to as an Extended Interframe Space (EIFS) time period) that is long enough to ensure that no associated user is, or remains, transmitting. That is, during the jamming phase 81a, those users which are not transmitting are prevented from transmitting while those users that are transmitting cease their transmission before the end of the EIFS time period.

[0027] In greater detail, assume, for example, that the beacon block 80 starts at a time t_0. Any Request to Send (RTS) messages that originate before t_0 and whose data and acknowledgement (ACK) transmissions are supposed to end after time t_0 are ignored by the APs. Thus, at time t_0 when data or ACK

messages are transmitted, the only possible transmissions are RTS messages. At time t_0, all the APs start to jam the channel for a period longer than *RTS_TIME*, where *RTS_TIME* is the time required for sending RTS messages at the lowest bit rate. As a result, all mobile users, including those that transmitted RTS messages at time t_0., sense the jammed signal and set their Network Allocation Vector (NAV) to EIFS. At the end of the jamming phase 81a, APs send their beacon messages in the beacon transmission phase 81b. Because beacon messages from two interfering APs may collide, a controller, such as controller 4 in FIG. 1, may be operable to control APs 2a,...2n by transmitting instructions to APs 2a,...2n whereby the beacon transmissions of APs are synchronized such that no two adjacent APs in an interference graph are allowed to send their beacon messages substantially simultaneously. To reduce the overhead of a beacon block, AP beacon messages should be sent as quickly as possible. This beacon "synchronization" problem may be mapped to a graph coloring problem. In one embodiment of the present invention, one such graph coloring problem seeks to find the minimal number of colors that are needed to color an interference graph, such that all nodes (e.g., APs) with the same color send their beacon messages substantially simultaneously (i.e., non-interfering APs send their beacon messages substantially simultaneously). The details of how the minimal number of colors is determined is beyond the scope of this application. One such method is disclosed in co-pending U.S. Patent Application No. 10/788,458, the disclosure of which is incorporated by reference herein.

Page 12:

[0043] In yet a further embodiment of the present invention, one optimal slot assignment scheme is an NP-hard problem. Such a problem may be solved

in a number of ways, one of which is described in co-pending Patent Application No. 10/788,458 the disclosure of which is incorporated by reference herein.

[0044] A full discussion of the assignment techniques set forth in co-pending Patent Application No. 10/788,458 is beyond the scope of the present application. Nonetheless, a brief discussion may aid the reader's understanding of the present invention. In general, the assignment techniques disclosed in co-pending Patent Application No. 10/788,458 produce slot assignments that are based on maximizing a lower bound of a slot-to-user ratio. It should be understood that the techniques in co-pending Patent Application No. 10/788,458 may be modified, or other techniques may be used which are not a part of co-pending Patent Application No. 10/788,458 in order to maximize a lower bound of a slot-to-user ratio. Regardless of the technique used, the output of any technique should be an appropriate slot-to-user ratio.

[0045] Continuing, the exemplary technique disclosed in co-pending Patent Application No. 10/788,458 can be broken down into two parts. In the first part, a coloring algorithm is supplied with interference graphs of the form $G(V, E)$, and a number of colors r_v, required by every node $v \in V$ in order to generate feasible slot assignments using a minimum number of colors, designated K. In another embodiment of the present invention, if a supplied interference graph $G(V, E)$ comprises a unit disk graph, the coloring algorithm works as a 3-approximation algorithm, meaning that an optimal coloring solution needs at least $K/3$ colors.

Page 13:

[0046] The second part of the assignment technique disclosed in co-pending Patent Application No. 10/788,458 involves a binary search to maximize the minimum slot-to-user ratio ρ which requires no more than R slots. It iteratively selects a ratio ρ and sets the requirement of each node $v \in V$ to $r_v = \lceil \rho \cdot m_v \rceil$ colors. In addition, the assignment techniques disclosed in co-pending Patent Application No. 10/788,458 make use of the coloring algorithm to check whether or not there is a feasible slot assignment with R *slots (colors). Based on the result, the assignment algorithm picks a lower or higher value for the ratio* ρ until it quickly converges to an optimal ratio ρ.